

State of Louisiana Coastal Protection and Restoration Authority Operations Division

2014 Annual Inspection Report

Barataria Bay Waterway East Shoreline Protection

State Project Number BA-26 Priority Project List 6

July 7, 2014 Jefferson Parish

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I. Introduction

The Barataria Bay Waterway East Bank Protection Project (BA-26) encompasses 2,790 acres (880 ha) brackish marsh and open water habitat on the east bank of the Barataria Bay Waterway located in the Barataria Basin, Jefferson Parish, Louisiana approximately 1.5 miles south of Lafitte. The Project is bounded by the Barataria Bay Waterway to the west, Barataria Bay Shoreline to the east and Bayou Dupont to the north (Appendix A).

II. Project Description and History

The Barataria Bay Waterway East Bank Protection Project includes approximately 17,100 linear feet (3.2 miles) of foreshore rock dike bank line protection and an earthen hydrologic barrier created from dredged material from the Barataria Bay Waterway Channel placed to the East along the rock dike within the project area. The rock structure was constructed with a synthetic clay core to reduce its overall weight. The clay material was encapsulated in geotextile bags and placed along the centerline of the dike. The dike is intended to re-establish the eastern bank of the Barataria Bay Waterway and to protect the adjacent marsh from unnatural water exchange and subsequent erosion which is exacerbated by wakes from vessel traffic on the waterway.

Project construction began on February 19, 2001, and was completed on May 21, 2001. Project life is estimated to be 20 years. Annual project inspections are planned.

In December 2005, a contract to raise these structures was awarded and resulted in the placement of 17,417 tons of rock riprap on the settled sections of the structure. The work was completed on January 24, 2006.

III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Barataria Bay Waterway East Bank Protection Project (BA-26) is to evaluate the constructed project features to identify any deficiencies and prepare a report detailing the condition of project features and recommended corrective actions needed. Should it be determined that corrective actions are needed, CPRA shall provide, in the report, a detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (O&M Plan August 9, 2002). The annual inspection report also contains a summary of maintenance projects and an estimated projected budget for the upcoming three (3) years for operation, maintenance and rehabilitation. The three (3) year projected operation and maintenance budget is shown in Appendix C. A summary of past operation and maintenance projects completed since completion of the project are outlined in Section II.

An inspection of the Barataria Bay Waterway East Bank Protection Project (BA-26) was held on July 2, 2014, by Barry Richard and Luke Prendergast of CPRA, along with Quin

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Kinler and Doug Baker of NRCS. Photographs of that inspection are included in Appendix B of this report.

IV. Inspection Results

Rock Riprap

The overall condition of the rock shoreline protection structure was good (Photo #1). Some settlement was observed south of the marsh creation portion of the South Shore of the Pen Project (BA-41, Photo #2). A small gap in the rock structure was noted at approximate coordinates N29.61380°, W 090.07905°. This gap is probably the result of vandalism and should be monitored (Photo #3). Some accretion and vegetation was observed behind the rock structure at the north end of the project (Photo #4).

V. Conclusions

The Barataria Bay Waterway East Protection Project (BA-26) is performing as intended. The rock dike is protecting the existing marsh as designed. Some settlement has been observed and will continue to be monitored; however, the structure should perform adequately through the next programmed maintenance lift.

VI. Recommendations

Immediate Repairs

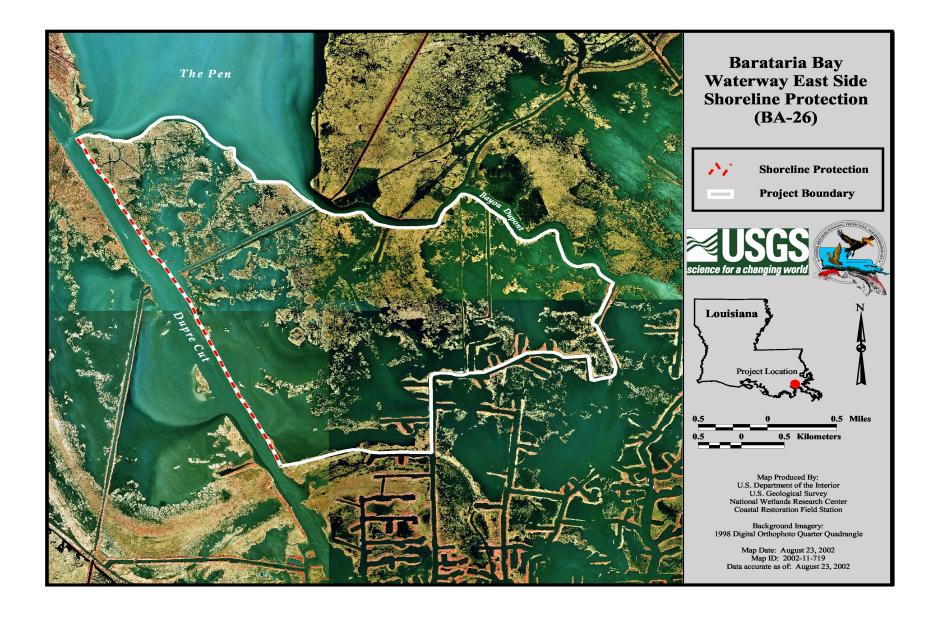
No immediate repairs are necessary at this time.

Programmed Maintenance

• Continue to monitor the settlement of the rock structure.

Appendix A

Project Features Map



Appendix B

Photographs



Photo #1 – Shoreline Protection



Photo # 2 – Slight Settlement Noted



Photo # 3 – Gap in Structure



Photo #4 – Accretion & Vegetation

Appendix C

Three Year Budget Projection

Barataria Bay Waterway East B	ank Protec	tion (BA-	26)																			
Federal Sponsor: NRCS		•																				
Construction Completed: 5/2001																						
PPL 6																						
Current Approved O&M Budget	Year 0	Year - 1	Year -2	Year -3	Year -4	Year -5	Year -6	Year -7	Year -8	Year -9	Year -10			Year -13	Year -14					Year -19	Project Life	Currently
	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	Budget	Funded
State O&M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$1,228,500	\$1,228,500
Corps Admin	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Federal S&A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total																					\$1,228,500	\$1,228,500
																					Remaining	Current
Projected O&M Expenditures																					Project Life	Budget
Maintenance Inspection										\$3,658	\$3,753	\$3,851	\$3,951	\$4,054	\$4,159	\$4,267	\$4,378	\$4,492	\$4,609	\$4,728	\$30,686	\$12,163
General Maintenance																					\$0	\$0
Surveys													\$60,000								\$0	\$60,000
Sign Replacement																					\$0	\$0
Federal S&A																					\$0	\$0
Maintenance/Rehabilitation																					\$0	\$0
E&D														\$12,000							\$12,000	\$12,000
Construction														\$300,000							\$300,000	\$300,000
Construction Oversight														\$75,000							\$75,000	\$75,000
Total										\$3,658	\$3,753	\$3,851	\$63,951	\$391,054	\$4,159	\$4,267	\$4,378	\$4,492	\$4,609	\$4,728	\$417,686	\$459,163
O&M Expenditures from COE Repo	rt			\$775,638	per Lana Rep	ort		Current O	&M Budget	less COE A	dmin		\$1,228,500				Current Pr	oject Life	Budget less	COE Admin		\$1,228,500
State O&M Expenditures not subm	itted for in-	kind credit		\$0				Remaining	Available (O&M Budge	et		\$452,862				Total Proje	ected Proj	ect Life Bud	get		\$1,193,324
Federal Sponsor MIPRs (if applicab	le)			\$0				Add'l Fun	ding amoun	nt needed t	hru FY15-F	/17	\$6,301				Project Lif	e Budget F	Request Am	ount		-\$35,176
Total Estimated O&M Expenditure	(as of June	2014)		\$775,638																	Not needed at this tir needed for FY15 mair	

Appendix D

Field Inspection Form

			MAINTENIAN	JOE INCREATI	ON REPORT CHECK SHEET
			WAINTENA	NCE INSPECTI	IN REPORT CHECK SHEET
Project No. / Na	me: BA-26 Barata	ria Waterway (East)	Shoreline Pro	tection	Date of Inspection: 7/2/2014 Time: 9:30 am
Structure No. n/a	<u>a</u>				Inspector(s): Richard, Prendergast, Kinler, Baker
Structure Descri	iption: Foreshor	re Rock Dike			Water Level Inside: N/A Outside: 0.90'
Type of Inspect	ion: <u>Annual</u>				Weather Conditions: Mostly sunny, light wind
Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Foreshore		_			small gap at approx. coordinates N29.61380, W090.07904
Rock Dike	Good	small gap	None	1, 2, 3, 4	some settlement, no action, continue observing
Settlement					
Plates	Good	None	None		
Signage					
/Supports	Good	None	None		